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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/927,183 | 08/10/2001 | Oludele Olusegun Popoola | 198-1162 | 5329 |

7590 02/14/2003

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EXAMINER

FERGUSON, LAWRENCE D

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1774

3

DATE MAILED: 02/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/927,183

Applicant(s)

POPOOLA ET AL.

Examiner

Lawrence D Ferguson

Art Unit

1774

-- The MAILING DATE of this communication appears n the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Claim Rejections – 35 USC 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. In claim 3, the phrase, "chips machined from said outer layer " is indefinite. It is unclear whether Applicant is claiming a thermally sprayed article or machined chips.

Claim Rejections – 35 USC § 102(b)

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Longo et al (US 3,723,165).

5. Longo discloses a thermally sprayed article (flame spraying) used for applying metal and plastic coatings (column 1, lines 7-49) where the plastics include polymers (column 1, lines 65-68). Longo discloses a metal material can be thermally sprayed on the article to form an inner layer (column 3, lines 54-60) where the sprayed coating forms the outer layer. Longo discloses the mixture of plastic powder and metal are co-deposited (column 2, lines 46-60) where the bond coat has a thickness of 0.005 inches and the top coat has a thickness of 0.001 inches (column 4, lines 15-20) resulting in the hardness of the outer layer being less than that of the inner layer. This would be inherent, because the plastic/metal mixture would be softer than the base metal alone.

Claim Rejections – 35 USC § 103(a)

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Godel (US 5,829,405) in view of JP 60190497.

8. Godel discloses thermal spraying a surface to a desired thickness (column 1, lines 55-58) forming an outer layer with a predetermined thickness. Godel discloses a metal inner layer and a metal outer layer (column 2, lines 5-15). In claims 3 and 4, 'chips machined from said outer layer' are held as a product by process claim limitation.

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"Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re

~~Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966. Godel does not specifically teach~~
spraying a polymer and metal.

JP '497 teaches thermally spraying a polymer and metal material with a predetermined thickness (abstract). Godel and JP '497 are analogous art because they are both directed to thermally spraying. It would have been obvious to one of ordinary skill in the art to include a thermal spraying of polymer and metal because JP '497 teaches the thermal spraying using a polymer and metal helps produce a tough and durable coating (abstract). Although neither reference specifically teaches a predetermined thickness, thickness is an optimizable feature. It would have been obvious to one of ordinary skill in the art to optimize the components because discovering the optimum or workable range involves only routine skill in the art. The thickness directly affects the wear resistance of the layers. In re Aller 15 USPQ 233 and see In re Boesch, 617 USPQ 215.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Funk (U.S. 5,897,947) discloses a thermally sprayed article (column 3, lines 6-7).


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Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is (703) 305-9978. The examiner can normally be reached on Monday through Friday 8:30 AM – 4:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. Please allow the examiner twenty-four hours to return your call.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)

308-2351.



Lawrence D. Ferguson
Examiner
Art Unit 1774

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

